

2. Amendment/Modification No. P00013	3. Effective Date 2007APR30	4. Requisition/Purchase Req No. SEE SCHEDULE	5. Project No. (If applicable)
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6. Issued By Code W56HZV U.S. ARMY TACOM LCMC AMSTA-AQ-ADEC MARIA KRAUS (586)574-6950 WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL EMAIL: KRAUSM@TACOM.ARMY.MIL	7. Administered By (If other than Item 6) Code S1403A DCMA CHICAGO 1523 WEST CENTRAL ROAD BLDG 203 ARLINGTON HEIGHTS IL 60004-2451  SCD C PAS NONE ADP PT HQ0339
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8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code) CATERPILLAR INC 100 NE ADAMS STREET PEORIA, IL 61629-0002  TYPE BUSINESS: Large Business Performing in U.S.	<input type="checkbox"/>	9A. Amendment Of Solicitation No.
	<input type="checkbox"/>	9B. Dated (See Item 11)
	<input checked="" type="checkbox"/>	10A. Modification Of Contract/Order No. W56HZV-05-C-0570
	<input type="checkbox"/>	10B. Dated (See Item 13) 2005SEP23
Code 11083 Facility Code		

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers  is extended,  is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning \_\_\_\_\_ copies of the amendments; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. **FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.** If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting And Appropriation Data (If required)  
SEE SECTION G (IF APPLICABLE)

**13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS**

KIND MOD CODE: B

It Modifies The Contract/Order No. As Described In Item 14.

<input type="checkbox"/>	A. This Change Order is Issued Pursuant To: The Contract/Order No. In Item 10A.	The Changes Set Forth In Item 14 Are Made In
<input checked="" type="checkbox"/>	B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).	
<input type="checkbox"/>	C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of:	
<input type="checkbox"/>	D. Other (Specify type of modification and authority)	

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the Issuing Office.

14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SEE SECOND PAGE FOR DESCRIPTION

Contract Expiration Date: 2007SEP30

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)	16A. Name And Title Of Contracting Officer (Type or print) TOD V. MILLER MILLERT@TACOM.ARMY.MIL (586)574-6802		
15B. Contractor/Offeror  (Signature of person authorized to sign)	15C. Date Signed	16B. United States Of America  By _____ /SIGNED/ (Signature of Contracting Officer)	16C. Date Signed  2007APR30

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<b>Name of Offeror or Contractor:</b> CATERPILLAR INC			

SECTION A - SUPPLEMENTAL INFORMATION

Contract:	W56HZV-05-C-0570
Modification:	P00013
Previous contract amount:	\$3,228,372.90
Amount of this action:	\$ 339,820.00
Total contract amount:	\$3,568,192.90

Modification P00013 to contract W56HZV-05-C-0570 is issued to:

1. To fund CLIN 0005AE, the extension of the two FSRs stay in theater by four months from 21 April to 5 Sep 07, which includes two weeks for R & R. The extended amount for this CLIN will \$339,820.00 (\$78,500x4 months=314,000+25,820 for R&R=339,820.00). R&R is due on from 23 July to 3 Aug.
2. Add two options, under 0005AF (6 Sep to 7 Jan 08) and 0005AG (8 Jan to 22 May 08, includes 2 more weeks R&R) for 2 FSRs for four months each, that can be awarded when funding becomes available. R&R will be due from 11 to 22 Feb 08.
3. Add the following Scope of Work and corresponding CDRL A015 to expand the FSR duties to include Management of spare parts in theater:

C.2.8 Management of Authorized Stockage List (ASL) Spare Part Components.

C.2.8.1 The FSRs shall receive, distribute and maintain inventory control of ASL spare part components for CPKs developed under this contract. The government will determine the location of storage for the ASL spare parts. The government will provide securable storage containers suitable for housing the ASL spare part components. The FSR shall coordinate with the PM CE/MHE Subject Matter Expert (SME) and Site Manager of the Army Field Service Command (AFSC) AoA Installation Site to identify the site location and receive access to the storage containers.

C.2.8.2 Upon receipt of the ASL package, the FSRs shall conduct an initial inventory of parts against the inventory list provided in the ASL package. Within 24 hours of completion of the inventory, the contractor shall notify the PCO and PM CE/MHE via email of receipt in total and identity of any missing parts. The contractor shall be responsible to procure and replenish missing parts identified in the initial inventory.

C.2.8.3 - Upon request from units with CPK equipped vehicles or from the PM CE/MHE SME, the FSRs shall distribute parts from the ASL package. Parts shall be issued within 48 hours of request. The FSR shall present a weekly report via email (in contractor format) on inventory distribution. The report shall identify at a minimum: Date of report, model of vehicle, part number issued, description of part, quantity issued, DODAAC of requesting unit, unit number, name of individual issued, email address of individual issued, date of issue, and distribution point. The report shall be prepared using Microsoft Excel software. The distribution report shall be delivered electronically to PM CE/MHE and the PM CE/MHE SME.

C.2.8.4 The FSR shall evaluate demand trends and recommend to the PM CE/MHE increased stockage quantity of individual parts currently in the ASL and the addition of any new parts not currently stocked in the ASLs.

C.2.8.5 - To maintain inventory control, the FSR shall present a weekly status report via email (in contractor format), which identifies parts issued and parts on-hand. The report shall identify at a minimum: Date of report, model of vehicle, part number, description of part, quantity issued, and quantity of part replenished, quantity on-hand, and distribution point. The report shall be prepared using Microsoft Excel software. The report shall be delivered electronically to PM CE/MHE and the PM CE/MHE SME in accordance with CDRL A015.

C.2.8.6 Upon any part reaching 80% of total issued, the contractor shall notify the government via email. Notification shall be made within 24 hours of the contractors knowledge of 80% total part issued. The Government will take action to procure and replenish parts.

C.2.8.7 The FSRs shall make every effort to maintain control and secure the ASL parts. The contractor shall not be held accountable for parts missing after the initial inventory. Within 24 hours of knowledge of missing parts, the contractor shall notify the government via email. The Government will take action to procure and replenish parts identified after the initial inventory.

4. Based on the above changes the contract amount is increased by \$339,820.00 from \$3,228,372.90 to \$3,568,192.90.
5. All other terms and conditions in the contract remain the same.

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Name of Offeror or Contractor: CATERPILLAR INC

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT									
0005AE	<p>SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS</p> <p><u>OCONUS FSRs 2 FOR 4 MONTHS (22APR-6SEP07)</u></p> <p>NOUN: AOA -DEUCE/ FSR                      PRON: P166F2262T PRON AMD: 02 ACRN: AC                      AMS CD: 51108992015</p> <p>\$339,820.00 is for 2 FSRs to stay in theater an additional four months (\$314,000.00)and 2 weeks paid R&amp;R (\$25,820.00) from 22 Apr 07 to 6 Sep 07. The R&amp;R is figured at the CONUS rate of \$1,291.00 per manday multiply by 10 days and 2 FSRs equals \$25,820.00. The additional 2 weeks is compensating for the 2 weeks R&amp;R (aprox 23 July-3 Aug07) taken upon completing 180 days of service in theater.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u>                      INSPECTION: Origin ACCEPTANCE: Origin</p> <p><u>Deliveries or Performance</u></p> <table border="0"> <tr> <td>DLVR SCH</td> <td></td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> <td><u>DATE</u></td> </tr> <tr> <td>001</td> <td>0</td> <td>06-SEP-2007</td> </tr> </table> <p style="text-align: right;">\$ 339,820.00</p>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	0	06-SEP-2007		LO		\$ 339,820.00
DLVR SCH		PERF COMPL												
<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>												
001	0	06-SEP-2007												
0005AF	<p><u>OPTION A, 2 FSRs FOR 4 MONTHS (7SEP-7JAN08)</u></p> <p>NOUN: OCONUS-2 FSRs FOR 4 MONTHS</p> <p>\$314,000.00 is for 2 FSRs stay in theater from 7 Sep to 7 Jan 08.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u>                      INSPECTION: Origin ACCEPTANCE: Origin</p> <p><u>Deliveries or Performance</u></p> <table border="0"> <tr> <td>DLVR SCH</td> <td></td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> <td><u>DATE</u></td> </tr> <tr> <td>001</td> <td>0</td> <td>07-JAN-2008</td> </tr> </table>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	0	07-JAN-2008		LO		\$ 314,000.00
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<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>												
001	0	07-JAN-2008												

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Name of Offeror or Contractor: CATERPILLAR INC

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT									
0005AG	<p><u>OPTION B, 2 FSRs FOR 4 MONTHS (8JAN-22MAY08)</u></p> <p>NOUN: OCONUS-2FSRS FOR 4 MONTHS</p> <p>\$339,820.00 is for 2 FSRs to stay in theater an additional four months (\$314,000.00) and 2 weeks paid R&amp;R (\$25,820.00) from 8 Jan 08 to 22 May 08. The R&amp;R is figured at the CONUS rate of \$1,291.00 per manday multiply by 10 days and 2 FSRs equals \$25,820.00. The additional 2 weeks is compensating for the 2 weeks R&amp;R (aprox 11 to 22Feb08) taken upon completing 180 days of service in theater.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u>                      INSPECTION: Origin ACCEPTANCE: Origin</p> <p><u>Deliveries or Performance</u></p>													
0005BA	<p><u>CONUS FSR</u></p> <p>NOUN: ARMOR-DEUCE/FSR                      PRON: P156F7632T PRON AMD: 07 ACRN: AB                      AMS CD: 51108992014</p> <p>CLIN 0005BA IS FOR ALL INSTALLATION TO INCLUDE ALL NECESSARY LABOR, TRAVEL, AND OTHER COSTS ASSOCIATED WITH APPLICATION OF THE AoA CPK's TO VEHICLES IN ACCORDANCE WITH C.6.</p> <p>THE PRICE FOR THIS CLIN IS <u>\$1,291.00</u> FOR 1 FSR PER MANDAY.</p> <p>PERIOD OF PERFORMANCE IS ONE MONTH WITH A ONE MONTH OPTION IN ACCORDANCE WITH C.6.24.</p> <p>**THIS TASK IS NOT TO BE STARTED UNTIL 0005AE IS COMPLETED.**</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u>                      INSPECTION: Origin ACCEPTANCE: Origin</p> <p><u>Deliveries or Performance</u></p> <table border="0" data-bbox="259 1869 763 1953"> <tr> <td>DLVR SCH</td> <td></td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> <td><u>DATE</u></td> </tr> <tr> <td>001</td> <td>0</td> <td>15-OCT-2007</td> </tr> </table>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	0	15-OCT-2007		LO		\$ 77,460.00
DLVR SCH		PERF COMPL												
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001	0	15-OCT-2007												

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Name of Offeror or Contractor: CATERPILLAR INC

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	\$ 77,460.00				
0012	<p><u>CONTRACT DATA REQUIREMENTS</u></p> <p>SECURITY CLASS: Unclassified</p>				
A015	<p><u>STATUS AND MANAGEMENT REPORT</u></p> <p>NOUN: PARTS STATUS REPORTS                      SECURITY CLASS: Unclassified</p> <p>Satus Reports in accordance with CDRL A015 and C.2.8</p> <p style="text-align: center;">(End of narrative B001)</p> <p><u>Inspection and Acceptance</u>                      INSPECTION: Destination      ACCEPTANCE: Destination</p>		LO	\$ ** NSP **	\$ ** NSP **

**Name of Offeror or Contractor:** CATERPILLAR INC

## SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

## Scope of Work

## Combat Engineer/Material Handling Equipment Crew Protection Kit

## C.1 Purpose and Scope:

This statement of work describes the outcomes the contractor is required to achieve. The contractor shall design, develop, build prototypes, provide test support, produce Add on Armor (AoA) Crew Protection Kits (CPK) for the system identified in section B of this contract:

C.1.1 The contractor is required to have access to classified information. The contractor shall have established the appropriate facilities and management controls up to the secret level. The contractor personnel assigned to this effort shall have valid secret level security clearances and have experience in the areas of armor, and survivability. A DD Form 254, Contract Security Classification Specification is included in Attachment 001. Attachment 002 is the supporting memorandum for the DD form 254, Contract Security Classification Specification.

## C.2 CPK Integration Effort:

The contractor shall develop a CPK comprised of replaceable opaque and transparent armor pieces, a substructure and mounting provisions for the armor, and modifications to the parent vehicle or additional equipment as necessary to meet safety, human factors, and vehicle performance requirements. The designs shall consider:

- Maximizing commonality of components with existing CPKs for the Tactical Wheeled Vehicle fleet and the Construction Equipment fleet, such as windows, windshield, hinges, latches, frames, armor composition, mounting system, etc.
- Minimizing impact on the operation and effectiveness of the vehicle/system.
- Maximizing commonality of hardware and minimizing number of installation tools.
- Pre-assembly of components into subassemblies.
- The use of proven materials, processes and techniques to minimize test requirements.
- Maintenance using only the tools found in the general mechanics tool kit and equipment available at unit level (NSN for the General Mechanics Tool Kit, Auto is 5180-00-177-7033).

Attached is a link on AKO which contains parts lists and components which are currently being used on Army Tactical vehicle AoA efforts <https://www.us.army.mil/suite/folder/1123218>. The contractor must have an Army AKO login ID to access this webpage.

Attachment 003 lists the parts and components that are currently being used on the All Terrain Lifter, Army System (ATLAS) AoA Crew Protection Kit.

## C.2.1. Lessons Learned:

The US Army has learned some important lessons that contractors should be familiar with when designing AoA CPKs. These lessons are Attachment 004 to this RFP, entitled: "Lessons Learned on Tactical Wheeled Vehicle Armor Kit Designs".

## C.2.1 Protection Level

C.2.1.1 The CPKs shall be designed to provide ballistic protection against direct small arms fire (7.62mm LPS rounds) and improvised explosive devices (20mm Fragment Simulating Projectiles (FSP)) for both opaque and transparent armor. The materials which shall be used are listed in Attachment 005.

C.2.1.2 The CPK shall be designed to provide maximum coverage for the occupant. Ballistic gaps that may be necessary to allow pass-through routings for items such as driver controls, electrical harnesses and hoses shall be minimized.

## C.2.2 Trade-Off Analysis:

The contractor shall perform a trade-off analysis for the system identified in section B. The analysis shall include: an engineering assessment of the impact of the CPK to the vehicle and their subsystems performance (for example: tires, front axle, suspension, drive train, hydraulics, electrical power, air conditioning system) relating to speed, lift capability, center of gravity, vehicle reliability, vehicle maintainability, visibility, transportability, and safety. The contractor shall also estimate differences between the vehicles pre-AoA CPK performance capabilities and post-AoA CPK performance capabilities and propose measures to mitigate degraded performance. The contractor shall deliver the trade-off analysis in a form that identifies the safety, risk, and cost impacts in accordance with CDRL A001.

## C.2.3 Kit Design:

C.2.3.1 The contractor shall design the CPK to be integrated with the systems identified in Section B. The purpose of a CPK is to maximize crew survivability and protection in the event of direct small arms fire or IED attack. The design effort shall include the use of 3-D CAD models, preferably using software compatible with Pro-Engineer \ae, to minimize the need for multiple physical mock-ups. The Government will provide a list of file formats that are translatable to Pro/E if requested.

C.2.3.2 The design of the CPK shall include opaque armor, transparent armor, armor support provisions, doors with latching mechanism(s) and a separate, emergency egress (in case of vehicle rollover). The emergency egress shall allow escape in the event that the cab door is inaccessible or inoperable. The design of the CPK shall include alterations to existing vehicle systems and components as necessary for safe operation (e.g. longer wiring harnesses, hoses, etc.).

C.2.3.3 The CPK shall include means to cool the operator, during road march and when operating (digging, craning, etc). The operators station shall not exceed 80 degrees F with the armor applied, with an ambient temperature of 120 degrees F, at 25 percent relative humidity. It will be tested IAW SAE J1503. This requirement may be met with a combination of:

- Existing cooling and ventilation systems.
- Insulation.
- Supplemental air conditioning.

If supplemental air conditioning is proposed, supplemental air conditioners currently used by PM Tactical Vehicles (i.e. Red Dot) shall

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be used. (The Government will supply details upon request). During the trade-off analysis, the Government may consider alternate-cooling methods.

C.2.3.4. Falling Object and Roll-Over Collapse Resistance. The machines original falling object protection shall not be degraded by the addition of the CPK. The CPK shall be designed such that, in the event of a 360-degree roll-over, the cab does not intrude upon the critical zone defined by SAE J397.

C.2.3.5 The government will evaluate MANPRINT using MIL-STD-1472F "Department of Defense Design Criteria Standard--Human Engineering" dated 23 August 1999 as a guide. Of particular importance are:

- Noise (at the operators station)
- Toxic fumes (at the operators station)
- Accessibility of controls
- Visibility (specifically for the ability of the operator to carry out mission functions with a minimum of degradation)
- Ingress and egress
- Operator contact with hot surfaces

C.2.3.6 NBC protection. There are no requirements for NBC protection on vehicles fitted with a CPK. There are no Electromagnetic Interference (EMI), Electromagnetic Control (EMC) or High Altitude Electro-Magnetic Pulse (HAEMP) requirements. However, CPK components shall be coated with CARC.

C.2.3.7 Combat Lock. Doors shall incorporate a device that allows the door to be secured from the inside. The combat lock shall prevent the door from being opened from the outside by enemy personnel and by the force of an IED explosion. An override shall be provided so that emergency personnel outside the cab can open the door.

C.2.3.8 The contractor shall minimize ballistic gaps to the maximum extent practical when the CPK is installed onto the vehicle. Joints and attaching hardware shall be designed to resist separating under blast pressure. All original equipment glass shall be removed from the system before the AoA CPK is installed.

C.2.3.9 Transportation.

C.2.3.9.1 Transportation Analysis. The contractor shall identify the limitations on transportability of the systems when equipped with the CPK. The Contractor shall provide data analysis to support the Government; showing how the vehicles with AoA CPKs will meet the air, highway, rail and marine (sea lift and amphibious) transportability requirements. The information shall also include an analysis and description of vehicle preparation procedures and average times to complete for transportability. This information shall be included in the trade off analysis.

C.2.3.9.2 Transportability Data Plate. The contractor shall provide a data plate using MIL-STD-209K as guidance, with each kit. The information shall include lifting and tie-down provisions, Gross Vehicle Weight (GVW), vehicle dimensions, weight distribution, length, width, height, approach/departure angles, ramp crest angle, axle loads and locations, Center of Gravity (CG) at GVW.

C.2.3.10. RADIO FREQUENCY IDENTIFICATION TAG (RFID): Deleted per modification P0004.

C.2.4 Prototype Fabrication and Testing:

C.2.4.1 Prototype Automotive Tests. For the CE system identified in section B, the contractor shall build and install prototype CPK on the CE system provided. The automotive test will consist of performance tests (e.g. braking, gradeability) and durability. The contractor shall provide on site technical assistance at the APG, MD test site to support CPK during the automotive testing. The contractor shall repair or replace kit parts that fail during testing and resolve any other CPK issues at no cost to the Government.

C.2.4.2 Material for Kits. See Attachment 005, Armor Materials.

C.2.4.3 Prototype CPK Ballistic Tests. For the system to be armored, the contractor shall provide one (1) set of the operating door side assembly, including opaque armor, transparent armor, hinges, latching hardware, and support structure. The Government may test the contractor provided door assembly in order to verify ballistic performance of the CPK design per the requirements stated in C.2.1 as well as kit integration. Fasteners and gaps will be evaluated. The contractor shall provide support to the CPK at APG, MD during government tests.

C.2.5 Drawing Packages. The contractor shall deliver feature-based parametric 3D models along with its 2D associated drawings in Pro-Engineer format, in accordance with CDRL A003. The Government will provide a drawing package and installation instructions, which will be used as samples for format and content (See Attachment 006). Prior to delivery to the government, the Contractor may maintain the drawing package in its own format.

C.2.6 Technical Data Package (TDP). The TDP shall meet the requirements of MIL-DTL-31000C and will be in accordance with ASME Y14.41, in accordance with CDRL A004 (DI-SESS-81000C). Drawings shall be in a format compatible with Pro-Engineer when delivered to the government. The Contractor may maintain the TDP in its own format.

C.2.7 Part Numbers. For the delivered data packages as described in C.2.5 and C.2.6, the government will provide part and drawing numbers.

C.2.8 Management of Authorized Stockage List (ASL) Spare Part Components.

C.2.8.1 The FSRs shall receive, distribute and maintain inventory control of ASL spare part components for CPKs developed under this contract. The government will determine the location of storage for the ASL spare parts. The government will provide securable storage containers suitable for housing the ASL spare part components. The FSR shall coordinate with the PM CE/MHE Subject Matter Expert (SME) and Site Manager of the Army Field Service Command (AFSC) AoA Installation Site to identify the site location and receive access to the storage containers.

C.2.8.2 Upon receipt of the ASL package, the FSRs shall conduct an initial inventory of parts against the inventory list provided in the ASL package. Within 24 hours of completion of the inventory, the contractor shall notify the PCO and PM CE/MHE via email of receipt in total and identity of any missing parts. The contractor shall be responsible to procure and replenish missing parts identified in the initial inventory.

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C.2.8.3 - Upon request from units with CPK equipped vehicles or from the PM CE/MHE SME, the FSRs shall distribute parts from the ASL package. Parts shall be issued within 48 hours of request. The FSR shall present a weekly report via email (in contractor format) on inventory distribution. The report shall identify at a minimum: Date of report, model of vehicle, part number issued, description of part, quantity issued, DODAAC of requesting unit, unit number, name of individual issued, email address of individual issued, date of issue, and distribution point. The report shall be prepared using Microsoft Excel software. The distribution report shall be delivered electronically to PM CE/MHE and the PM CE/MHE SME.

C.2.8.4 The FSR shall evaluate demand trends and recommend to the PM CE/MHE increased stockage quantity of individual parts currently in the ASL and the addition of any new parts not currently stocked in the ASLs.

C.2.8.5 - To maintain inventory control, the FSR shall present a weekly status report via email (in contractor format), which identifies parts issued and parts on-hand. The report shall identify at a minimum: Date of report, model of vehicle, part number, description of part, quantity issued, and quantity of part replenished, quantity on-hand, and distribution point. The report shall be prepared using Microsoft Excel software. The report shall be delivered electronically to PM CE/MHE and the PM CE/MHE SME in accordance with CDRL A015.

C.2.8.6 Upon any part reaching 80% of total issued, the contractor shall notify the government via email. Notification shall be made within 24 hours of the contractors knowledge of 80% total part issued. The Government will take action to procure and replenish parts.

C.2.8.7 The FSRs shall make every effort to maintain control and secure the ASL parts. The contractor shall not be held accountable for parts missing after the initial inventory. Within 24 hours of knowledge of missing parts, the contractor shall notify the government via email. The Government will take action to procure and replenish parts identified after the initial inventory.

**C.3 Production Effort:**

**C.3.1 Hardware**

C.3.1.1 The contractor shall produce the CPK that conform to the configurations approved by the government at the conclusion of all testing. All kits shall be fabricated to this configuration unless otherwise directed, in writing, by the PCO.

**C.3.2 Kit Assembly**

C.3.2.1 Packaging. To the extent practicable, the contractor shall organize the packaged kits to allow sequential removal in the order required for installation on the vehicle. It is desirable to have an efficient kit installation, using pre-assembly where practical. Installation instructions and a content list shall be packaged with each kit and shall be immediately accessible when the kit is opened. Components which must be installed with a particular face towards the enemy, and which are not distinguishable by shape, shall be marked to indicate proper assembly. The transparent armor (glass) will not be marked or etched. The kits shall be packaged to prevent damage during transport, using best commercial packaging practices. The contractor shall ensure that packaged kits are loaded on pallets, and packaged in ISO containers marked with the RFID tags (C.3.2).

C.3.2.2 Each kit shall contain (over packed) one set of installation instructions, operating instructions and maintenance instructions. Each kit shall also contain 10% additional attaching hardware. Additionally a packing slip will be affixed to the CPK shipping container, in accordance with Attachment 007, Information Memorandum No. 05-077 from <http://guidebook.dcm.mil/61/dc05-077.htm>.

C.3.2.3 Storage. Until the Government directs shipment, the contractor shall store the CPK(s) for a period of up to 60 calendar days after acceptance. During this period, the kit(s) shall be stored at no additional cost to the Government.

**C.4 Installation Instructions:**

C.4.1 The contractor shall develop, validate, and provide installation instructions as described below. Instructions shall be developed for the CPK in accordance with CDRL A005.

C.4.1.1 The instructions shall be in a contractor format that is consistent with US Army Technical Bulletin format, per MIL-Spec-40051.

C.4.1.2 The instructions shall be in the form of "start step to end step" instructions. The instructions shall be written to maximize the efficiency of the installation process. The contractor shall validate the installation instructions, during installation of the second prototype kit at the contractors facility prior to shipment. The Government will observe and verify the installation.

Installation instructions shall be written so that the kits can be installed at Army organic (unit) level. The contractor shall advise the Government of the date of validation seven days prior to validation.

C.4.1.3 The instructions shall contain clear illustrations of each step. Hardware and other items, which could be installed backwards, shall be clearly shown in the proper orientation. The use of color digital photos and line art is acceptable. The after installation condition of the vehicle shall be clearly illustrated.

C.4.1.4 The instructions shall contain an Illustrated Parts Breakdown (IPB) of all components, assemblies and hardware. The IPB shall utilize clear and concise line drawings. The IPB shall be similar in format to the current US Army Repair Parts and Special Tools List (RPSTL), in accordance with MIL Spec 40051.

C.4.1.5 Instructions shall include notes, cautions and warning statements as appropriate. In particular, the proper handling, storage and cleaning of transparent armor shall be included. Instructions shall contain a list of tools; manpower and support equipment requirements needed to accomplish each task.

**C.5 Technical Publications: Construction / Materiel Handling Equipment, Crew Protection Kit (CPK) Technical Bulletin (TB) and Parts Provisioning List (PPL):**

C.5.1.0. A Start of Work meeting for logistics support, to include publication and provisioning efforts shall be held within 15 days of contract modification award. The government will host the meeting at the PM Combat Engineer/Material Handling Equipment (PM CE/MHE) offices in the Detroit metropolitan area OR at the local contractor/subcontractor office.

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C.5.1.1 The Contractor shall prepare, validate and deliver a separate Crew Protection Kit (CPK) Technical Bulletin (TB) to support the use, operation, maintenance, parts and installation and removal of the unique CPK as applied to the respective vehicle system(s) identified in Section B.

C.5.1.2. The Technical Bulletin(s) shall be prepared in accordance with Exhibit General Publication Requirements and Exhibit Repair Parts and Special Tools List Requirements, MIL-STD 40051-2 and MIL-HDBK 1222C. The MIL-STD and MIL-HDBK are available at [www.logsa.army.mil](http://www.logsa.army.mil) <<http://www.logsa.army.mil>>. The CPK TBs shall include CPK installation and removal instructions, Operators instructions, Unit and Direct Support Maintenance and related Repair Parts and Special Tools List (RPSTL) data. The Commodity Command Standard System (CCSS) based RPSTL data shall be included in the TB 5-2430-200-13&P as part of the Supporting Information Chapter/work package.

C.5.1.3. The CPK TB shall include an Operator and a separate Unit Maintenance Preventive Maintenance Checks and Services (PMCS) and a two level Maintenance Allocation Chart (MAC) supporting the CPK. The Operator and Unit PMCS and the MAC and all related data shall be tailored and confined to the CPK as applied to the vehicle identified in Section B and resulting vehicle configuration changes. All other (non CPK) operator and maintenance instructions and RPSTL data shall be supported by references to the non CPK vehicle TM series. The contractor shall be responsible for all changes to the CPK TB and as applied to the vehicle configuration resulting changes from testing and reviews; changes shall be at no additional cost to the government.

C.5.1.4. All CPK instructions shall be in the form of fully illustrated, detailed start step to end step instructions. The CPK installation instructions shall be written to maximize the efficiency of the installation process. The detailed removal instructions shall be in the same form as the installation instructions. Simply stating reverse the installation instructions or similar is not acceptable. The step by step installation and removal instructions shall be included in the back of the CPK TB as part of the Supporting Information Chapter. The installation and removal instructions shall be part of the combined VAL/VER effort.

C.5.1.5. All instructions shall contain clear illustration of each step. Instructions shall include required modification dimensions or templates as needed to install the CPK on the vehicle. Include appropriate Warnings, Cautions regarding welding, drilling or otherwise degrading the integrity of the ROP/FOPS structure; recertification may be required. Hardware and armor items which could be installed backwards shall be clearly shown and described in the proper orientation. In particular, the proper handling, storage and cleaning of transparent and opaque armor shall be illustrated and described in detail to avoid damage. The use of digital photos and line art are acceptable; the use of color is not acceptable. Multiple views of the after CPK installation vehicle configuration shall be illustrated in the TB.

C.5.1.6. Previously delivered data: Installation instructions that were developed, validated and delivered under CDRL A005 may be used as source data to meet the CPK TB requirements for kit installation instructions. If this data was successfully validated/verified and the contractor has records supporting such action the installation instructions need not be physically performed again. The contractor shall insure that such data is accurately incorporated into the CPK TB. If not part of the instructions, complete, illustrated step-by-step removal instructions must still be developed and validated as part of the CPT TB effort under CDRL A011.

C.5.1.7. Combined Validation and Verification:

C.5.1.7.1. The Contractor shall physically validate 100% of the TB/ETM delivery; this includes the kit installation (if not previously Va/Verd) and removal instructions to be included in the CPK TB. All TB data and instructions shall be concurrently verified by the government prior to the final delivery and publication. Validation methodology shall be hands-on (preferred), comparative or desk-top (if hands-on cant be performed) and shall be sufficient to find and correct all technical inaccuracies and shortcomings in the data developed under this contract. The contractor shall maintain validation records documenting control of the validation process, the actions taken to validate each task, corrective actions and mark-ups required for each task and page and follow-up validation of corrected and reworked data. Contractor shall make available a copy of the mark-ups and re-worked pages for government records. The contractor shall provide the ability to make ongoing/same day or next day corrections to re-worked data, pages. The Government intends to witness the contractors validation process. Witnessing the contractors validation process will serve as the Governments primary verification effort. The Contractor shall provide TACOM a minimum of 30 days advance notice prior to beginning a validation effort.

C.5.1.7.2. The Government reserves the right to perform a separate Verification for accuracy, usability, safety and incorporation of any reworked data or late configuration changes prior to acceptance of final deliveries. The contractor shall support such Verification if needed. Contractor shall make available a CPK, applicable Section B vehicle, parts, tools and support equipment that would be required to successfully complete verification.

C.5.1.8. Delivery. Contractor shall prepare and deliver paper, digital (Adobe Acrobat 5.0 or higher .PDF ETM) and editable files with intelligent text. Intelligent text is defined as text that can be selected, edited, manipulated, copied, linked, etc. The text shall not be bit-mapped type graphic data. Graphics and line drawings shall be in CGM, CCITT group 4 or TIFF files.

C. 5.1.9. Contractor should make maximum use of existing text and line drawings in the Operators, Maintenance and RPSTL vehicle system manuals. See LOGSA website in C.4.2 above; the TMs for the vehicle systems listed in section B above are available. If the contractor is unable to obtain a copy of the vehicle system TMs the government will be provide a copy.

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C.5.1.10. All TB, ETM and editable file materials will be delivered transportation cost prepaid. Delivery will be made to the Commander, US Army Tank-automotive and Armament Command (TACOM), ATTN: AMSTA-LC-CJL, Warren Michigan 483197-5000, unless notified otherwise. Material shall arrive at its destination no later than the delivery date scheduled on the respective CDRL. Packaging shall be adequate to assure delivery without damage. Material may be hand-carried by the contractor if so desired at no additional cost to the Government.

C.5.1.11. Contractor shall provide an unrestricted copyright release for each TB delivered and insure that the government has the right to use and distribute the related ETMs and electronic data files over the internet.

C.5.1.12. The TB Distribution Restriction Statement for the front cover and Title Block Page shall be: DISTRIBUTION STATEMENT C: Distribution authorized to US government agencies and contractors associated with PEO CS&CSS TACOM Life Cycle Management Command (LCMC) locations or providing support to the TACOM LCMC and community partners IAW AR 530-1. For Official Use Only (FOUO) caveat is assigned so as not to place US personnel at risk, or compromise security procedures, or DOD information (Critical/Technology). This determination was made November 4, 2005. This document is not releasable to the public or media. Destroy by shredding or tearing to make unreadable, when no longer needed. This document should not be sent over the INTERNET unencrypted, or posted to any public website. Other requests for this document shall be referred to PEO CS&CSS (David Busse, 586 574-5497). Mail: PEO CS&CSS, ATTN: SFAE-CSS-TV, 6501 EAST 11 mile Road, Warren MI 48397.

C.5.1.12.1. The contractor shall destroy all paper copies and electronic files upon government acceptance of final publication deliverables.

C.5.1.12.2. If the contractor sends the CPK TB via INTERNET, the TB must meet FIPS 140-2 Encryption Standard.

C.5.2 Provisioning: The contractor shall develop and deliver Logistics Management Information (LMI) (Provisioning Parts List {PPL} (036 Report acceptable) data for each Crew Protection Kit (CPK) for the respective vehicle system(s) identified in Section B. The contractor shall use this data to update the current Provisioning Master Record (PMR) database for each system. A Start of Work/Provisioning Guidance Meeting shall be held at TACOM no more than 30 days after contract award.

All provisioning documentation, called LMI Summaries, shall be delivered in accordance with CDRL A013. Documents applicable for use in identification, content, format, delivery and related guidance for this data:

MIL-PRF-49506, Performance Specifications, Logistics Management Information (LMI), 11 Nov 96

MIL-HDBK-502, Acquisition Logistics Handbook (for reference only)

The contractor shall provide Logistic Management Information (LMI) data for all parts on each system CPK. Associated provisioning data (drawings) shall be provided for the top level assembly (kit) drawing or illustration and all parts. All LMI provisioning data shall be prepared in accordance with DI-ALSS-8159, DI-ALSS-81530 and the attached PMR Data Requirements sheet.

For industry standard common hardware include descriptive nomenclature. Make from items made from industry standard components shall include additional descriptive nomenclature. Examples of additional descriptive information include, at a minimum, the physical dimensions and all classifications (i.e. hardness, grade, thread type, surface finish, coatings, industry specifications and etc.). Common hardware includes nuts, bolts, washers, O-rings, cotter pins, C-clips, clevis pins, lamp bulbs, etc.

LMI data shall be capable of being loaded into the Government PMR without any modification to the data. CCSS has various methods by which the Contractor can deliver provisioning data and each will be discussed at the SOW. Contractor shall correct rejects within 30 days after notification of problems.

C.5.2.1 Provisioning Data Products (Drawings): Provisioning drawings shall consist of company drawings or commercial parts book pages that clearly identify each item and its part number, to include a top level assembly (kit) drawing or illustration. Drawings shall be annotated with the appropriate Provisioning Contract Control Number (PCCN) and Provisioning Line Item Sequence Number (PLISN) for that part number. The contractor shall furnish a drawing either hard copy or electronically that is legible and representative for each new part in accordance with CDRL A012.

C.5.2.2 Provisioning Screening: The contractor shall conduct provisioning screening on each item on the PPL for standardization or NSN identification. This screening will be used to select valid part numbers, NSNs, and current unit of measure/issue prices for provisioning purposes. The contractor shall screen common hardware items (nuts, bolts, screws, washers, lockwashers, rivets, etc.) by technical characteristics. The screening results must be available for review at each provisioning conference. The contractor shall conduct provisioning screening using FLIS, WEBFLIS, FEDLOG or by batch submittal part numbers to DLIS. HAYSTACK is no longer acceptable for provisioning screening. For additional information on FLIS and batch submittals to DLIS, refer to the Provisioning Screening User Guide located on the internet at [www.dlis.dla.mil](http://www.dlis.dla.mil) <<http://www.dlis.dla.mil/>>. For additional information on WEBFLIS, go to [www.dlis.dla.mil/WebFlis](http://www.dlis.dla.mil/WebFlis) <<http://www.dlis.dla.mil/WebFlis>>. There are two versions of WEBFLIS: Public Query and Restricted/Sign-on. Anyone with access to the Internet may access the Public Query version. The Restricted/Sign-on version requires a valid userid/password to access the system. Userids may be obtained by filling out a registration form. The registration forms are found on the DLIS web

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site. After accessing the Home Page, go into the Forms and Publications section and select the registration form for WEBFLIS. There are two forms available - one for government workers and one for government sponsored contractors.

C.6 Field Service Representative (FSR).

C.6.1 (OCONUS FSR) The Contractor shall provide one to three personnel experienced in and qualified on all aspects of their Add-on-Armor kit to serve as Field Service Representatives (FSRs) to support Caterpillar (CAT) Add on Armor (AoA) Kit installation, during initial application and subsequent fielding, at the following sites:

- Mosul, Iraq

Performance period is Three months in SWA and an option for six (6) one-month extensions in SWA. The FSR is allowed 14 days of Rest and Relaxation (R & R), after 180 days of service in theater. The Government reserves the right to add additional FSRs, or sites for FSR service, as the mission requirements change. Additional FSRs and sites will be added by task order and individually priced.

C.6.1.1 The FSRs located in Iraq shall be stationed at the locations identified in C.1, but some of the work may require traveling to the installation sites within the SWA AOR to provide temporary assistance and support NET of AoA versions of vehicles identified in section C.3.1.

C.6.1.2 The FSRs may be required to travel on a temporary basis to other locations within the SWA AOR to provide assistance and support of AoA versions of vehicles identified in section C.3.1.

C.6.2 For clarification, the AoA Kit includes:

- AoA Cab Kit
- Air Conditioning/Insulation Kit
- Alternator Upgrade Kit

C.6.3 Field Service Representative (FSR) duties

C.6.3.1 The FSRs shall have general mechanical experience with the following vehicles and variants:

- DUECE

C.6.3.1.1 The FSRs must have in-depth knowledge and expertise with all facets of CAT Add on Armor (AoA) Kit installation on the DUECE vehicles.

C.6.3.2 The FSRs shall provide training, troubleshooting/diagnosis, repair, and resolution of technical issues in support of the AoA Kit installation effort. The FSRs shall conduct on-the-job production line installation training for the AoA Kits for new military personnel, Government civilian personnel, and other contractor personnel deployed to the installation site. Training shall be to the level that site installation personnel are capable of installing and maintaining the AoA Kits without Contractor oversight. The FSRs shall provide updated training to previously-trained mechanics to ensure that they are fully aware of all changes and improvements made to the AoA Kit.

C.6.3.3. The FSRs shall provide on-site installation and maintenance support to the AoA New Equipment Training (NET) instructors during operator and maintenance training of AoA versions of the vehicles identified in section C.3.1. NET will be performed at locations identified by the Multi-National Command-Iraq (MNC-I) and the Combined Joint Task Force -76 (CJTF-76). The contracting officer will provide a 14 day notice of dates and locations when NET will occur.

C.6.3.3.1 The Field Service Representative's (FSR's) primary objective is to oversee and assistance in the installation of the DUECE armoring solutions. When not directly involved in the armor installation the FSRs will use their expertise in providing technical support service to other Caterpillar equipment at the install site or installation area.

C.6.3.3.2 There maybe occasions when the FSR will need to travel to the units to get feed back on the AoA vehicles. When this is the situation, the FSR will travel with a military escort.

C.6.3.3.3 The FSRs role will to provide problem resolution support to assess users operation, maintenance, troubleshooting, and support problems and develop corrective course of actions. The technical support will be in the form of assistance, aid, informal operation and maintenance training to the user with the focus on reduce vehicle downtime and focus on system readiness. The FSRs will report to the Install Site Manager and area's Logistic Assistance Representative (LAR) to coordinate where assistance is needed and for oversight and monitoring of system issues and corrective actions. The FSRs will maintain a log of customer support actions and close outs and provide the information in the weekly FSR reports.

C.6.3.4 The Contractor shall present a weekly status report per CDRL A014, via email (in contractor format), which identifies the hours expended and the number of AoA kits installed per vehicle type, to the following personnel:

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- The COR (need to identify who and provide contact information)
- The Contracting Officer (need to identify who and provide contact information)

C.6.3.6 All contract employees are authorized to work a flexible 12 hour per day workday, seven days a week, to accommodate vehicle availability, or may be directed to work a compressed schedule of not less than six days, 84 hours per week, at the discretion of the Site Manager/COR.

#### C.6.4 Material and Equipment

C.6.4.1 The Government will provide all facilities, installation labor, special tools, MHE, material, and supplies to support the effort. The Government will also provide minimal field office facilities to include a desk, chair, basic office supplies, and electrical outlets. Disposition of removed parts will be directed by the Government. The Government shall be responsible for the transportation of vehicles and kits to the proper locations.

C.6.4.2 The Contractor shall provide its employees personal tool kits, communications, and IT equipment (i.e. satellite hook up).

C.6.4.3 The Government will provide two (2) electronic copies (CDs) of the latest Technical Bulletin (TB), AoA cab kit installation instructions, Air Conditioning kit installation instructions, and alternator upgrade kit instruction for use as training material.

C.6.4.4 The Government will furnish on-site transportation for contract employees located in Iraq. The Contractor will be required to provide transportation at the other sites.

#### C.6.5 Living Conditions

C.6.5.1 The Government will provide housing for the contract employees at the Iraq sites listed in C.1.

C.6.5.2 As authorized in the Letter of Authorization or elsewhere in this contract, contract employees will be provided Government subsistence that includes meals, billeting, emergency medical care, emergency dental care, and access to morale and welfare activities and available chaplains. If subsistence changes during deployment (e.g. the Combatant Commander or subordinate Commander changes the authorizations), the Contractor must notify the Contracting Officer.

C.6.5.3 While performing duties IAW terms and conditions of the contract, the Service Theater Commander will provide force protection to the contract employees commensurate with that given to Service/Agency (e.g. Army, Navy) civilians in the operations area.

C.6.5.5 As required by the operational situation, the Government may at its discretion relocate FSRs (who are citizens of the United States, aliens in resident in the United States, or third country nationals, not residents in the host nation) to a safe area or evacuate them from the area of operations. The U.S. State Department has responsibility for evacuation of non-essential personnel.

C.6.5.6 The Contractor shall ensure that each employee hired by or for the Contractor (including subcontractors) acknowledges in writing that they understand the danger, stress, physical hardships, and field living conditions that are possible if the employee deploys in support of military operations. The Contractor shall ensure that contents of this paragraph are included in all subcontracts.

C.6.5.6.1- Due to further force security issues and concerns in theater, many commands are asking for verification of the status of our contractors security background. As a result, the Contractor must maintain a completed background check on file for each employee that will be deployed.

#### C.6.6 Medical Information

C.6.6.1 Prior to deployment, the Contractor shall ensure that all deployable personnel are medically and physically fit to endure the rigors of deployment in support of a military operation. Employees who fail to meet medical or fitness standards, or who become unfit through their own actions, will be removed from the area of operations and replaced at the Contractors expense. All personnel must have a complete set of immunizations and inoculations for entry into SWA.

C.6.6.2 Deploying contract employees shall carry with them a minimum of a 90 day supply of any medication they require. Military facilities will not be able to replace many medications required for routine treatment of chronic medical conditions such as high blood pressure, heart conditions, asthma, and arthritis. Contract employees will review both the amount of the medication and its suitability in the foreign area with their personal physician and make any necessary adjustments prior to deployment.

C.6.6.3 If glasses are required, contract employees will deploy with two pairs of glasses and a current prescription. Copies of the prescription will be provided by the employee to the CONUS Replacement Center (CRC) so that eyeglass inserts for use in a compatible chemical protective mask can be prepared.

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C.6.7 The Government shall provide the contract employees with Chemical Defensive Equipment (CDE) familiarization training commensurate with the training provided to Department of Defense civilian employees. The training and equipment will be provided at the CRC for employees traveling from CONUS.

C.6.9 The Contractor shall ensure that all deploying individuals have the required identification tags and cards prior to deployment. In addition to the DD FM 489 (Geneva Convention Card) issued at the point of deployment, all contractor employees will be issued personal identification tags and Common Access Cards (CAC), if available before deployment. Personal identification tags will include the following information: full name, social security number, blood type, and religious preference. Contractor employees will maintain all issued cards and tags on their person at all times while OCONUS. These cards and tags shall be obtained through CRC, and shall be promptly returned to the Government upon redeployment.

C.6.10 The Contractor shall ensure that their employees obtain any appropriate Visas before entering the theater of operations. The Government will supply a letter to the Iraqi Ministry to aid in the receipt of a Visa.

C.6.11 The contract employees accompanying the force are not authorized to wear military uniform, except for specific items required for safety and security. The Combatant Commander, subordinate Joint Force Commander (JFC), or Army Force (ARFOR) Commander may require that contractor employees be issued and be prepared to wear Organizational Clothing and Individual Equipment (OCIE), to include Chemical, Biological, and Radiological Element (CBRE) and High-Yield Explosive defensive equipment, necessary to ensure contractor personnel safety and security. The contract employees shall sign for all issued OCIE to acknowledge receipt and acceptance of responsibility for the proper maintenance and accountability of the OCIE. The contract employees shall return all issued OCIE to the Government at the place of issue unless directed otherwise by the Contracting Officer. The Contracting Officer shall require the Contractor to reimburse the Government for OCIE lost, stolen, or damaged due to Contractor negligence or misconduct.

C.6.12 The Contractor shall ensure that deployed employees possess the required licenses to operate all vehicles or equipment necessary to perform contract tasks in the theater of operations. Before operating any military owned or leased vehicles or equipment, the contract employee shall provide proof of license (issued by an appropriate governmental authority) to the unit or agency issuing the vehicles or equipment.

C.6.13 Contract employees in support of U.S. military operations are not permitted to carry personally owned firearms. Contract employees normally shall not be armed during active military operations; however, the Combatant Commander may authorize issue of standard military side arms and ammunition to selected personnel for personal self-defense. In this case, weapons familiarization, qualification, and briefings on rules of engagement, shall be provided to the contract employees, completed at the CRC. Even if authorized, acceptance of weapons by the personnel is voluntary, and must also be permitted by their employer.

C.6.14 Before deployment, the Contractor shall ensure that each contract employee completes at least three (3) DD Forms 93, Record of Emergency Data Card. One completed form is for the CRC, one copy for the Armys Casualty & Memorial Affairs Operations Center (CMAOC), and one copy for the Army Materiel Command (AMC) Logistics Support Element (LSE) Contractor Coordination Cell (CCC) or other designated liaison.

C.6.17 Unless prohibited by international agreement, the Contracting Officer shall provide a Letter of Authorization (LOA) for deployed contractor personnel. This is the document contract employees must carry with them as authorization for use of a Government transportation, medical facilities, billeting, and other entitlements. Contractor employees are not authorized to use Invitational Travel Orders.

C.6.18 The Contractor shall at all times remain contractually responsible for the conduct of its employees. The Contractor shall promptly resolve to the satisfaction of the Government, all contract employees performance and conduct problems identified by the Government. Failure to correct such problems may result in the Government directing the Contractor, at the Contractors own expense, to replace and, where applicable, repatriate any employee who fails to comply with this language to adhere to instructions and general orders issued by the Combatant Commander or his/her designated representative. Such action may be taken at the Governments discretion without prejudice to its rights under any other provision of this contract, including the Termination for Default Clause.

C.6.19 If any contract employee departs an area of operation without permission, the Contractor will ensure continued performance IAW the terms and conditions of the work directive. If the Contractor replaces an employee who departs without permission, the replacement is at the Contractors expense and must be complete within 72 hours, unless otherwise directed by the contracting officer.

C.6.20 The FSRs will serve as a working member of the installation teams, as needed. The FSRs may be required to travel to other countries within the SWA AOR on a temporary basis to provide assistance.

C.6.21 (CONUS FSR) The Contractor shall provide one (1) person who is experienced and qualified in all aspects of installation and sustainment of Add on Armor (AoA) kits to serve as a Field Service Representative (FSR) to support Add on Armor (AoA) kit installation, during initial application and subsequent fielding, at the following sites:

- One (1) FSR at Fort Leonard Wood, Missouri

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The period of performance is one month with a one month option. The Government reserves the right to add additional sites for FSR service as the mission requirements change. Additional sites will be added by task order and individually priced.

C.6.21.1 Field Service Representative (FSR) duties

C.6.21.1.1 The FSR shall have general mechanical experience with the vehicles and variants in section B of this contract.

C.6.21.1.2 The FSR must have in-depth knowledge and expertise with all facets of CAT Add on Armor (AoA) Kit installation on the vehicles in section B of this contract.

C.6.21.1.3 The FSR shall install, troubleshoot/diagnose, repair, and resolve technical issues in support of the CAT AoA Kit installation effort. The FSR shall provide updated training to previously-trained mechanics to ensure that they are fully aware of all changes and improvements made to the CAT AoA Kit.

C.6.21.2 The Contractor shall present a weekly status report via email (in contractor format) in accordance with CDRL A009, reports shall be distributed to the: COR, PM FP and PCO.

C.6.21.3 The contractor shall use the FIR, which has already been developed under this contract, to record process quality control. Once signed by the certifying Government Inspector, the work will be certified.

C.6.21.4 The employee is authorized to work a flexible 8 hour per day workday, up to a seven day work week, to accommodate vehicle availability, or may be directed to work a compressed schedule of not less than five days, 40 hours per week, at the discretion of the COR, PM FP and PCO.

C.7 Spare Parts:

C.7.1 Authorized Stockage List (ASL): Within 30 days after Critical Design Review (CDR), the contractor shall submit an initial ASL (recommended support for 365 days) to the Government. Within 10 days after successful prototype testing, the contractor shall submit the final ASL to the Government for approval, in accordance with CDRL 007.

C.7.2 ASL Delivery: The contractor shall provide the items described by the final ASL for each CPK system. The Government is allowing the contractor to use their experience and knowledge of spare parts to determine a fair estimate of materials, but the ASL items provided shall not include armor of any type. The ASL items shall be separately packaged, using best commercial practice, FOB origin.

C.7.3 ASL Storage: Until the Government directs shipment, the contractor shall store the ASL for a period of up to 60 calendar days after acceptance. During this period, the ASL shall be stored at no additional cost to the Government.

C.7.4 Spare Parts Price List (SPPL). Thirty (30) days after the Critical Design Review (CDR), the contractor shall provide a priced list of spare parts that may be required to support the AOA CPKs. Firm prices for these items will be negotiated and incorporated into the contract.

C.8 Opaque Armor Special Requirement

The contractor shall purchase and identify the opaque armor by "lot." Each production lot from a vendor shall be tested for conformance with the ballistic requirements by the Government at Aberdeen Test Center. The contractor shall provide a test report detailing conformance in accordance with CRDL A002.

C.9 Quality Program:

C.9.1 The contractor shall utilize a Quality Program that, as a minimum, meets the requirements of ISO 9001-2000. The quality program shall include: quality plan, inspection requirements, record keeping, control of processes (especially welding and painting), and control of discrepancies (identification, investigation, corrective action and disposition of non-conforming items). All work performed under this contract shall be conducted by qualified personnel in accordance with best commercial quality standards.

C.9.2 Welding: Welding and weld inspection shall be performed in accordance with AWS D1.1 Structural Welding Code, Steel and AWS D1.2 Structural Welding Code, Aluminum as appropriate. Substitution of an equivalent welding standard may be allowed with prior Government approval.

C.9.3 Surface Treatment and Finish Requirements: All metallic components shall be protected against corrosion by their material composition (for example stainless steel), metallic coating (for example galvanizing) or paint coating. All surfaces exposed to the environment during storage and after installation shall be protected. Metallic items shall be painted on all surfaces. Non-metallic items shall be painted as necessary to prevent degradation due to environmental effects and for camouflage purposes. All paint shall be Chemical Agent Resistant Coating (CARC). Paint shall be applied in accordance with MIL-DTL-53072C or drawing 19207-12420325.

C.9.3.1 Fasteners: Fasteners supplied in the CPK (e.g. bolts, screws, washers and nuts) need not be pre-painted. The kit assembly instructions shall indicate when such items need be painted, after assembly, for corrosion or camouflage purposes.

C.9.3.2 Kit components shall be painted Tan 686, color number 33446 in accordance with FED-STD-595B.

C.9.3.3 Post-assembly Surface Treatment. The contractor shall identify special cleaning and maintenance procedures necessary to preserve the integrity of the CPK. Examples are: methods of cleaning transparent armor to prevent scratching, and cleaning and handling requirements to prevent degradation of composite and fabric materials.

C.9.4 Final Inspection Report (FIR): The contractor is responsible for performing all inspections as specified in the control plan. Each CPK shall be subjected to a complete final inspection by the contractor utilizing a contractor-developed and Government-approved FIR in accordance with CDRL A006. The FIR shall be based upon the successfully tested prototype configuration. The Government, at its option,

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may elect to witness and/or participate in the contractors final inspection.

C.9.5 Deficiencies: The contractor shall rectify discrepancies prior to Government acceptance of any item.

C.10 Program Reviews and Documentation:

C.10.1 Start of Work Meeting. Not later than 7 days after contract award the Government will host a start of work meeting at the PM Combat Engineer/Material Handling Equipment (PM CE/MHE) offices in the Detroit metropolitan area. At the start of work meeting, the contractor shall present a process management plan (including tools, collaborative environment, modeling and simulations as applicable) for the CPK, in accordance with CDRL A008. The contractor shall provide a detailed Time Phased Critical Path (TPCP) for the vehicle system in the contractors own format. The Preliminary Design Review (PDR) date will be established at the start of work meeting.

C.10.2 The contractor shall conduct a weekly teleconference with the COR, the PM CE/MHE leadership, and/or any/all other CE/MHE armor matrix team members via VTC or teleconference. The contractor shall submit the minutes from the weekly teleconferences to the contracting office within 48 hours in their own format, in accordance with CDRL A009. The contractor shall immediately report to the Government lead-time issues that may impact schedule. The contractor will make recommendations for alternate approaches.

C.10.3 Preliminary Design Review (PDR). Prior to the start of detailed design, the contractor shall conduct a PDR at the contractors facility. The contractor shall provide an overall plan (TPCP), general design strategy, and a mock-up of the proposed operator's field-of-view area for the system. The Government will review the proposed field-of-view area during the PDR, prior to the fabrication of the prototype CPK. The type of mock-up (computer model, wood, paper, etc.) shall be determined by the contractor and reviewed by the Government at the start of work meeting. The Government will provide a subject matter expert (SME) to perform the evaluation. The contractor shall proceed with the proposed PDR plan, if the government does not respond within 48 hours of the completion of the PDR.

If the contractor needs to purchase materials before the PDR, a written request for permission must be submitted to the PCO for approval. The contractor remains responsible for any design or hardware changes resulting from the CDR and/or prototype testing.

C.10.4 Critical Design Review (CDR). Prior to the start of the prototype fabrication/assembly, the contractor shall conduct a CDR for the vehicle system no later than 14 days after PDR. The CDR shall be conducted at XMCO, the contractors subcontractor's facility in Warren, Michigan. The contractor will present the trade-off analysis at the CDR. The contractor shall proceed with the proposed CDR plans and may fabricate prototype and production kits, if the government does not respond within 48 hours of the completion of the CDR. The contractor remains responsible for any design or hardware changes resulting from the prototype testing.

C.10.5 If required, the contractor shall host a pre and post ballistic test meeting at the contractors facility.

C.11 Safety:

C.11.1 The contractor shall submit a Safety Assessment Report (SAR) to the Government for the CPK, in accordance with CDRL A010). The report will identify the hazards resulting from the application of the CPK, the likelihood of occurrence, the severity of resulting injury/ damage and the mitigation actions taken. Hazards that have severe consequences and cannot be eliminated by design changes shall be clearly identified. The draft report shall be submitted at the systems Critical Design Review. An assessment of vehicle stability and an estimation of operational limitations resulting from the addition of the AoA CPK shall be included in the report.

C.11.2 The contractor shall provide cautions and warnings for the AoA CPK, to be affixed onto the inside of the vehicle, during installation, to alert the operator of any required notices and/or warnings. The contractor shall provide sample cautions and warnings at the Critical Design Review to determine placement on the inside of the vehicle.

C.12 Government Furnished Material (GFM). The Government will provide to the contractor two (2) Deuce, to be fitted with an AoA CPK, for the design and integration effort. The contractor shall be responsible for shipping these systems from Selfridge Air National Guard Base (SANGB) Michigan to his facility. The contractor shall be responsible for shipping these systems from his facility to the test facility at Aberdeen Proving Ground, MD. The contractor is responsible for ensuring that the Government-furnished vehicle/equipment is not damaged in transit.

C.13 Contracting Officers Representative (COR). The COR is an individual designated in accordance with DFARS 201.60202 and is authorized in writing by the contracting officer to perform specific technical functions. The Procuring Contracting Officer will designate a COR upon contract award. The contractor will receive a copy of the written designation after contract award that will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quantity, delivery or any other term or condition of this contract.

C.14 New Equipment Training (NET) Development Support

C.14.1 The government will use a NET contractor to develop training on the Add on Armor (AoA)Crew Protection Kit (CPK) for the DEUCE. Caterpillar (the CPK OEM) shall support the NET contractor in his efforts to develop and deliver training on the AoA CPKs. Caterpillar shall provide the NET contractor all available "draft" information that is part of the DEUCE CPK Technical Bulletins within 72 hours of being notified by the contracting officer. This "draft" DEUCE CPK Technical Bulletin shall be provided in electronic format. Updates to this draft will be provided to the NET contractor electronically every 30 days until the FDEP TM is delivered to TACOM. The CPK OEM shall be available to explain the contents of this documents with the NET contractor. Caterpillar shall allow the NET contractor access to the AoA kitted vehicles being used for TB/PPL development within 48 hours of being notified by the contracting officer. Access shall include visual inspection of the AoA kitted vehicle and discussion with TB/PPL developers.

C.14.2 Caterpillar shall participate in NET development IPT meetings via teleconferencing. The contracting officer will provide a schedule of when those meetings will occur. Also, Caterpillar will host IPT meetings at their TB/PPL developers facility in Warren MI.

\*\*\* END OF NARRATIVE C 0001 \*\*\*

**CONTINUATION SHEET**

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SECTION G - CONTRACT ADMINISTRATION DATA

LINE	PRON/ AMS CD/ ITEM MIPR	ACRN	OBLG STAT/ JOB ORD NO		PRIOR AMOUNT		INCREASE/DECREASE AMOUNT		CUMULATIVE AMOUNT
0005AE	P166F2262T 51108992015 A16P50151C2T	AC	2 6ZCC12	\$	0.00	\$	339,820.00	\$	339,820.00
0005BA	P156F7632T 51108992014 A15P50141CMA	AB	1 5ZCC15	\$	38,730.00	\$	38,730.00	\$	77,460.00
					NET CHANGE	\$	378,550.00		

SERVICE NAME	NET CHANGE BY ACRN	ACCRN	ACCOUNTING CLASSIFICATION		ACCOUNTING STATION	INCREASE/DECREASE AMOUNT
Army	AB	21	52035000051C1C09P51108931E1	S20113	W56HZV	\$ 38,730.00
Army	AC	21	62035000061C1C09P51108931E1	S20113	W56HZV	\$ 339,820.00
						NET CHANGE \$ 378,550.00

	PRIOR AMOUNT OF AWARD		INCREASE/DECREASE AMOUNT		CUMULATIVE OBLIG AMT
NET CHANGE FOR AWARD:	\$ 3,228,372.90	\$	378,550.00	\$	3,606,922.90

ACRN	EDI ACCOUNTING CLASSIFICATION			
AB	21 050720350000	S20113 51C1C095110899201431E1	5ZCC15S20113	W56HZV
AC	21 060820350000	S20113 61C1C095110899201531E1	6ZCC12S20113	W56HZV

**CONTINUATION SHEET**

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SECTION J - LIST OF ATTACHMENTS

<u>List of</u> <u>Addenda</u>	<u>Title</u>	<u>Date</u>	<u>Number</u> <u>of Pages</u>	<u>Transmitted By</u>
Exhibit A	CDRLS A001 THROUGH A015	18-APR-2007		EMAIL

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**ATT/EXH ID** Exhibit A  
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